<div align="center">**REMARKS**</div>

Claims 2-5, 7-9, 13-16, 18-21, 23, 24, 26-28, and 33-41 are pending. Claims 1-32 are rejected. Claims 2-5, 7-9, 13-16, 18-21, 23, 24, 26-28, and 30 are amended. Claims 33-41 are newly added. Claims 1, 6, 10-12, 17, 22, 25, and 29-32 are canceled. No new matter is added.

Summary of Examiner Interview

Applicant thanks the Examiner for the courtesies extended during a teleconference with Nishitkumar V. Patel on October 20, 2010. During the teleconference, claim 1, pending before this amendment, was discussed in light of Whitten (U.S. Patent No. 5,805,795) and Bening ("Optimizing Multiple EDA Tools within the ASIC Design Flow"). Mr. Patel indicated that Whitten does not disclose or suggest input pins and output pins as recited in claim 1. Rather, Whitten discloses deriving "a subset of the test cases that exercises a maximum number of the identified code blocks in a minimum amount of time" (col. 5, lines 46-48). Moreover, Bening, at best, discloses "testing for reset, test, or scan modes in a common ordering across all library modules" (page 49, left column).

The Examiner recommended changing "decision logic" to "conditional logic", which is now a feature of claims 24, 37, and 41.

First 35 U.S.C. §103 Rejection

Claims 1, 2, 5, 17-21, 25-28, and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Whitten (U.S. Patent No. 5,805,795) in view of Bening ("Optimizing Multiple EDA Tools within the ASIC Design Flow") in further view of Dustin ("Automated Testing Tools").

Claim 1 is canceled. Claims 2 and 5 depend from independent claim 33. Applicant respectfully submits that none of Whitten, Bening, and Dustin, considered alone or in combination, disclose or suggest a method as called for by claim 33. For example, the combination of Whitten, Bening, and Dustin does not disclose or suggest "interconnecting the lines of the plurality of parameterized submodules based on a selection of a particular type of interconnect from a plurality of interconnect types ".

Rather, Whitten discloses, in column 5, lines 46-48, deriving "a subset of the test cases that exercises a maximum number of the identified code blocks in a minimum amount of time" and Bening discloses, on page 49, left column, "testing for reset, test, or scan modes . . . across all library modules". The description of deriving the subset of test cases in Whitten and the

testing for the different modes in Bening does not describe or suggest "interconnecting the lines of the plurality of parameterized submodules based on a selection of a particular type of interconnect from a plurality of interconnect types", as claimed. There is no such selection from "a plurality of interconnect types," as claimed, described or suggested in Whitten or Bening.

Moreover, Dustin does not disclose or suggest "interconnecting the lines of the plurality of parameterized submodules based on a selection of a particular type of interconnect from a plurality of interconnect types" as called for by claim 33. Rather, Dustin, at best, discloses choosing "input structures and values in a statistically random distribution" and employing of "logic, event, and state-driven strategies" (page 3). Thus, there is no description or suggestion, in Dustin, of the interconnects or the selection from "plurality of interconnect types" as claimed.

Accordingly, for at least the reasons set forth above, the combination of Whitten, Bening, and Dustin does not disclose or suggest "interconnecting the lines of the plurality of parameterized submodules based on a selection of a particular type of interconnect from a plurality of interconnect types," as claimed. Hence, Whitten alone or in combination with Bening and Dustin fails to render independent Claim 33 obvious, under 35 U.S.C. §103(a).

Independent Claims 17 and 25 are canceled.

Claim 30 is canceled. Claims 18-21 depend from independent claim 36 and claims 26-28 depend from independent claim 39. Independent claims 36 and 39 are patentable over the cited combination for similar reasons that Claim 33 is patentable. Hence, dependent claims 18-21 and 26-28 also would not have been obvious over the combination of Whitten, Bening, and Dustin.

Therefore, for at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 1, 2, 5, 17-21, 25-28, and 30 be withdrawn.

Second 35 U.S.C. §103 Rejection

Claims 4, 6-13, 15, and 22-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Whitten in view of Bening and in further view of Dustin and Zaidi (U.S. Patent Application Publication No. 2002/0038401 A1).

Claims 6, 10-12, and 22 are canceled, thereby obviating the rejection.

Claims 4, 7-9, 13, and 15 depend from independent claim 33. Zaidi fails to remedy the failures of Whitten in view of Bening and in further view of Dustin with respect to the limitations of independent claims discussed above. For example, Zaidi discloses "linking and compiling of the appropriate design files" and "conditional linking and compiling of alternate block directories for more flexibility in block simulations" (paragraph 48, Table I, and paragraph

52). Zaidi further discloses connecting to "internal processor, external processor, and no processor" (paragraph 50). The disclosure of linking, conditional linking, and connections with the internal, external, and no processor in Zaidi does not disclose or suggest "interconnecting the lines of the plurality of parameterized submodules based on a selection of a particular type of interconnect from a plurality of interconnect types" as claimed. The disclosure of connection with the internal processor, the external processor, or no processor in Zaidi does not disclosure or suggest "a particular type of interconnect" as claimed in claim 33. As such, Claims 4, 7-9, 13, and 15 are patentable by virtue of their dependency on claim 33.

For at least the reasons set forth above, Applicant respectfully submits that the combination of Whitten, Bening, Dustin, and Zaidi does not disclose or suggest a computer system as recited in claim 36 and dependent claims 23-24. Accordingly, claims 23-24 would not have been obvious over the combination of Whitten, Bening, Dustin, and Zaidi.

Third 35 U.S.C. §103 Rejection

Claims 14 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Whitten in view of Bening, Dustin, and Zaidi and in further view of Goossens ("Design of Heterogeneous ICs for Mobile and Personal Communication System").

Claims 14 and 16 depend from independent claim 33. As explained above, the combination of Whitten, Bening, Dustin, and Zaidi does not disclose or suggest a method as recited in claim 33. Moreover, Goossens is not cited to address the deficiencies of Whitten, Bening, Dustin, and Zaidi with respect to independent Claim 33. For example, Goossens is cited to teach "submodules comprising of adders and phase lock loops" and "clock structures that include a plurality of synchronous and asynchronous structures" (Office Action, pages 7 and 8). Accordingly, Claims 14 and 16 are patentable over the cited combination by virtue of their dependency.

Fourth 35 U.S.C. §103 Rejection

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Whitten in view of Bening and Dustin and in further view of Rajsuman (U.S. Patent No. 6,678,645).

Claim 3 depends from independent claim 33. As explained above, the combination of Whitten, Bening, and Dustin does not disclose or suggest a method as recited in claim 33. Moreover, Rajsuman is not cited to address the deficiencies mentioned above with respect to Whitten and Bening. For example, Rajsuman is cited to teach "generating a plurality of test

designs of an ASIC including DSP and memory submodules" (Office Action, page 8). Accordingly, for at least these reasons, claim 33 and dependent claim 3 would not have been obvious over the combination of Whitten, Bening, Dustin, and Rajsuman.

Fifth 35 U.S.C. §103 Rejection

Claims 29, 31, and 32 are rejected under 35 U.S.C. §103(a) as being unpatentable over Whitten in view of Bening and Dustin and in further view of Barford (U.S. Patent Application Publication No. 2003/0139906 A1).

Claims 29, 31, and 32 are canceled. Accordingly, for at least these reasons, Applicant respectfully requests that the Section 103 rejection of claims 29, 31, and 32 be withdrawn.
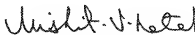
New Claims

New independent claims 33, 36, and 39 would not have been obvious over the cited art for at least the reasons set forth above. Moreover, dependent claims 34, 35, 37, 38, 40, and 41 also would not have been obvious over the cited art.

Conclusion

In light of the above remarks, the rejections to the independent claims are believed overcome for at least the reasons noted above. Applicant believes that all pending claims are allowable in their present form. Please feel free to contact the undersigned at the number provided below if there are any questions, concerns, or remaining issues.

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